

Additional items to be added to buildings requiring Air conditioning systems

Efficient Air Systems

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CASED COIL



Hermetic Copper Line set- In a split system air conditioning system, the evaporator coil positioned on top of or next to the Furnace must be connected to the Outside condensing unit with 2 copper pipes. Normally the liquid line is 3/8" & the suction line is 7/8" (size depends on the tonnage) in addition a low voltage control pair of wires & the suction line is encased with a foam insulation, to insulate it from ambient air, which would, during operation, accumulate moisture "sweat" & would drip water along its entire pathway. The section of this line set which runs outside is normally covered with a "line set cover" or a sheet metal box approximately 6"X 6". This can be painted to match the building. Labor & materials to run this depends on the pathway chosen, number of penetrations, size of copper, number of splices required, thickness of the *Rubatex* insulation & total length of the run.

220 Volt line- In a split system the outdoor unit (the condensing unit) is required to have a 220 Volt power line run to it. The size of the wire, type of conduit required, a service disconnect, a circuit breaker & various fittings & hardware comprise the 220V run. In addition the existing Main electrical meter panel (circuit breaker box) must be of a size of capacity to allow a tap off the bus bars which will not exceed the total capacity of the existing meter panel. Sometimes on older homes this meter panel must be replaced with a larger capacity meter panel. Prices for this upgrade are \$2,250 to \$2,850 & must be performed by an electrical contractor, prior to the addition of the air conditioning system

Condensate drain plumbing-The evaporator coil adjacent to the furnace, as it cools the air, also removes the moisture from the air, & this moisture collects in a drain pan at the base of the evaporator coil. A larger system operating on a hot & humid day can produce up to a liter per hour of water which must be drained off & removed. Normally this drainage terminates into a condensate pump which automatically pumps the condensate water into an elevated section where a gravity drain can allow it to be deposited into a waste drain within the home; normally it is run into a bath lavatory sink or a laundry waste. If the building did not have Air conditioning previously, this drainage system must be added.

